

TEST

Start / Wattage

After switching on the power, the system is ready for operation after about 2 minutes. From standby, it only takes about 3 seconds.

The typical wattage is about 78 kWh per year.

Operation

Polycom has provided the Real Presence series with a new user interface. It is easy to understand, but sometimes it takes a lot of keystrokes to reach the goal.

The removal of the key for the transmission of content from the remote control leads to an unusual overhead. It is now necessary to navigate through several menus to send the right channel.

Operation (Addition 09/2016)

In September 2016 a renewed test with the software version 5.1.2 was performed. With version 5 the user interface was redesigned again and has been adjusted to the look and feel of the mobile applications of Polycom. However, the settings page has not been changed visually.

Audio

Audio was good to very good in all connections. The microphones are integrated into the camera. Therefore, echo cancelling can be brought to its limits if parts of the device are arranged in an adverse manner or if the participants are very far away from the system. That is why there may be a little ambient noise, which never affected the understandability of the remote side in a negative way though. An improvement can be expected, if the EagleEye III or EagleEye IV camera with distinct microphones instead of the EagleEye Acoustic camera is used.

For the transmission, the codecs [G.722](#), [G.722.1C](#) and the [Siren LPR](#) capability are used.

Video

Video was good to very good in all connections. With modern devices 1080@25 was sent, with older devices 720p@25. The Tandberg 6000 MXP was the only exception, where w576@12 was used for the transmission.

H.239

Static content (e.g. presentations) was always transmitted in very good quality in both directions.

When sending and receiving dynamic content in the data channel, the content could only be used practically with older remote sides when receiving SD videos on the part of the Real Presence Group 500. With HD content, the negotiated frame rate was much too low.

Similarly, when the Polycom device sent dynamic content in the data channel, older remote sides were not able to promptly generate a sensible image from the received data stream with up to 25 fps. With modern devices, there were no technical problems.

Detailed test results can be found in the [compatibility matrix](#).

Camera Remote Control

Remote controlling the camera worked when the requirements were met in all the tests.

Service DFNVideoConference

Collaboration with the MCUs within the service DFNVideoConference worked without restrictions. Siren14 as well as H.264 were used with 720p@25 (sending direction) and 1080p@22 (receiving direction).

The collaboration according to H.239 was implemented with H.264 and 720p@7 in very high quality for presentations as well as SD and HD videos.

Gatekeepers

Collaboration with the gatekeepers GNU-GK and CISCO MCM worked without restrictions.

SIP

When calling the MCU within the service DFNVideoConference via SIP dialling with the syntax "Conference_ID@mcu.vc.dfn.de", there was a particularity: The calls were always aborted after exactly 1 minute and 40 seconds. During this time, a data presentation could be carried out in the second channel through BFCP. Several different settings of the system and of the DFN service did not provide a solution. The reason for the abortion could not be determined within the test period.

SIP calls to other systems worked faultlessly, also for longer time spans.

URI Dialling

Calls via URI dialling according to H.323 Annex O worked with the syntax "mcu.vc.dfn.de##Conference_ID" without restrictions.

Encryption and Firewall Traversal

All connections were encrypted with AES according to H.235.

The device supports firewall traversal according to H.460.18 and H.460.19.

Connection to Lync / Skype for Business (Addition 09/2016)

In September 2016 a renewed test with the software version 5.1.2 was performed. As part of this test the software option "Interoperability license for Skype for Business" was activated at the Polycom Group 500. With this option the system is capable to register at Lync / Skype for Business through a given account. For this purpose SIP has to be activated and the SIP registration has to be performed with "Microsoft" as "Registrar Server type". A simultaneous SIP registration to another SIP server is not possible in that case.

Within connections to Lync participants audio and video were each without complaints. The transmission of data presentations is only be carried out in the second channel if the opposite site (Lync participant) is sending it. The transmission of a data presentation from the Polycom Group 500 is done in the first channel (video channel), so that the self-image is not being send in this case.

CONCLUSION

The system Polycom Real Presence Group 500 can be recommended unconditionally for average group sizes. Audio and video do not show any deficiencies. In connections with older remote sides high-definition video films should be avoided for data presentations.

Documentation

We would like to thank the companies Polycom and MVC Mobile VideoCommunication GmbH for providing the tests.

Manufacturer: Polycom

Distributor: MVC Mobile VideoCommunication GmbH

Supported general standards	H.323, SIP
Audio encodings	G.711 , G.722.1 , G.722.1C , G.728 , G.729A , Polycom Siren 22
Video compression	H.261, H.263, H.264
Bandwidth	Up to 6 Mbps